

## Abstract

A measurements expert system and method for generating high-performance measurements software drivers. The measurements expert system is able to interpret a customer's measurement task specification (MTS) specifying a measurement task, explore possible solution paths, and generate a solution, e.g., a run-time specification (RTS), optimized for the customer's measurement system. The expert system includes programs for analyzing and validating a received MTS, and a plurality of measurements experts which are operable to analyze all or part of the MTS and populate complete or partial RTSs. The partial RTSs are iteratively populated by other experts to form complete RTSs. Competing RTSs may be assessed and a final RTS selected based upon user preferences. The final RTS is useable to configure one or more measurement devices according to the RTS, and to generate a run-time which is executable to perform the specified measurement task using the one or more measurement devices.

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